

OFDM MULTIPLE UPSTREAM RECEIVER NETWORK**ABSTRACT**

A communications system for transferring signals from a wireless transmitter to a hub station, comprising a wireless transmitter configured to transmit a data signal using multiple sub-carriers, a plurality of base stations each configured to receive the multiple sub-carrier data signal and relay the multiple sub-carrier data signal to a hub station; and a hub station configured to receive and combine the multiple sub-carrier data signals from the plurality of base stations. The wireless transmitter may use an orthogonal frequency division modulation (OFDM) scheme to transmit portions of the data signal in parallel on multiple sub-carriers.

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